

**PEPTIDE FRAGMENTS OF MICROBIAL STRESS PROTEINS AND
PHARMACEUTICAL COMPOSITION MADE THEREOF FOR THE
TREATMENT AND PREVENTION OF INFLAMMATORY DISEASES**

ABSTRACT OF THE DISCLOSURE

Peptides are provided which are useful for protection against or treatment of an inflammatory disease, including autoimmune diseases, such as diabetes, arthritic diseases, atherosclerosis, multiple sclerosis, myasthenia gravis, or inflammatory responses due to tumour or transplant rejection. The peptides contain a part of the aminoacid sequence of a microbial protein having a conserved mammalian stress protein homologue, wherein the overall aminoacid sequence identity between the microbial and the mammalian homologues is at least 25%, and the sequence identity between the microbial and the mammalian homologues of an area of at least 75 consecutive aminoacids is at least 30%, said part comprising at least 5 aminoacids which are in the same relative position as the same aminoacids in a T cell epitope of said stress protein, which epitope contains at least 4 consecutive aminoacids which are identical with the corresponding mammalian stress protein aminoacids. Nucleotide sequences, expression systems, antibodies and pharmaceutical and diagnostic compositions derived from these peptides are provided as well.